



Munich Personal RePEc Archive

The economic transition and migration of Vietnam and the Mekong Delta region

Huynh Truong, Huy
Can Tho University

December 2011

Online at <http://mpa.ub.uni-muenchen.de/36387/>

MPRA Paper No. 36387, posted 03. February 2012 / 12:43



Centre for ASEAN Studies



Centre for International Management
and Development Antwerp

The economic transition and migration of Vietnam and the Mekong Delta region

Huynh Truong Huy

CAS Discussion paper No 78

December 2011

1. Introduction

Relationship between economic transition and migration has long attracted increasing attention of both policy-makers and researchers. Migration is seen as a response of changes during the economic transition in a country, because labour is an important production factor in the market, in which labourers have a desire to move to a place of better working conditions rather than going to a disadvantaged conditions (De Haas, 2010; Todaro, 1980). The rapid development of industrialization at some large cities in the Southeast region of Vietnam has attracted a huge number of migrants from other regions in the country during the last decade as a striking example for the relationship between economic development and migration in an emerging country.

In a study of the relationship between internal migration and development in Vietnam, Anh *et al.* (1997) based on census data to investigate whether or not changes in the economic structure affect internal migration flows in Vietnam during the first years of the economic transition¹. They found that opportunities of employment and economic factors are main determinants of migration flows, especially those flows to more developed provinces or regions came from less developed provinces or regions. It is not surprising that the concentration of industrialization and service development in the Southeast region (e.g. Ho Chi Minh and Binh Duong) has played an important role in creating many opportunities of employment and services for both local and migrant labourers.

These empirical literature and specific circumstances have partly explained the realistic relationship between economic transition and migration. A broader analysis of this relationship for Vietnam context in earlier studies of migration is, however, scarce.

Hence, in this paper I extend this discussion by examining how effects of economic transition on internal migration since the late 1980s. This idea aims at gaining a broader insight into the relationship between economic transition and migration during the renovation process. In particular, I first present an introduction of development stages of Vietnam's economy. Next, I describe a context of economic development since the renovation process in the mid-1980s and afterward. Following, a particular focus on economic development of the Mekong Delta – the leading sending region in the present decade – is described. And, a history of internal migration underlying during the economic transition outlined. Finally some conclusions are drawn.

2. Development stages of economy in Vietnam

Vietnam, with an area of 331,150 sq. km and a population of over 86 million, is the 13th most populous country in the world (VGSO, 2009b). During its entire development, from governance by feudal dynasties to the present socialist regime, Vietnam is basically an agrarian nation with two large deltas i.e. the Red Delta in the North and the Mekong Delta in the South. It is worth noting that still over 70% of the population live in rural areas. These people are primarily depending on agriculture. Today, 20 years after

¹ Vietnam Government launched a comprehensive economic reform in 1986, often known as "Doi Moi - Renovation" process.

the initiation of the renovation policy, Vietnam is seen as one of the best performing economies in the developing world. It is estimated by the World Bank (WB) that Vietnam entered into the ranks of middle income nations surpassing USD 1,000 per capita in 2010 (WB, 2010). To have a broader insight about development of Vietnam, an overview of the economic history is useful.

2.1 “Doi Moi” and the period 1986-1995

In order to overcome the stagnant situation of the economy in during the post-war period, the 6th National Party Congress of Vietnam in 1986 launched a comprehensive renovation program – “Doi Moi” - for the economy which started a new era of socio-economic development in Vietnam. The policy of economic renovation aimed to promote a shift from a centrally planned economy to socialist oriented market economy. This process includes a liberalization of prices, expansion of the private sector, encouragement of foreign investment and privatization. The overall objective of the economic transition is to restructure the economy and promote structural change – a classic strategy of development (Todaro & Smith, 2009, 115) - from a primarily traditional agricultural economy to a more modern economy including manufacturing and services.

In this period, the government implemented a set of economic development policies with the following main targets:

- To encourage a diversified development of economic ownerships (mainly private, foreign investment).
- To recognize the right of long-term use of land to household (the Land Law was approved in 1993).
- To restructure the management of cooperatives and production groups, satisfying stakeholders' interests and social demand.
- To stimulate trade by permitting exchange and transport across provinces or regions, the sale of produced by farmers in markets rather than compulsory selling to cooperatives at fixed prices.
- To invest into agriculture and rural development such as investments in irrigation, in agricultural extension activity, providing credit to farmers, etc.
- To reinforce public infrastructure and facilities such as schools, health services, communication, roads, etcetera.

Apart from internal economic renovation the government of Vietnam opted for the trade liberalization policy (often called the “open door” policy). By 1990, Vietnam reconnected with the International Monetary Fund and the World Bank and had renewed and normalized international relations with many nations.

2.2 Post 1995

In 1995 three important events were worth noting concerning the integration of Vietnam in the world economy. First, the embargo of Vietnam by the U.S.A. was lifted in 1995 resulting in bilateral trade exchanges. According to statistical data of the VGSO, the value of bilateral trade exchanges between Vietnam and the U.S.A. rose quickly from less than USD 1 billion in 2002 to USD 14.4 billions in 2009 (VGSO, 2009b). Second, the integration of Vietnam into the 10 members of Association of Southeast Asian Nations (ASEAN) Free Trade Area strongly stimulated trade within this trade zone through

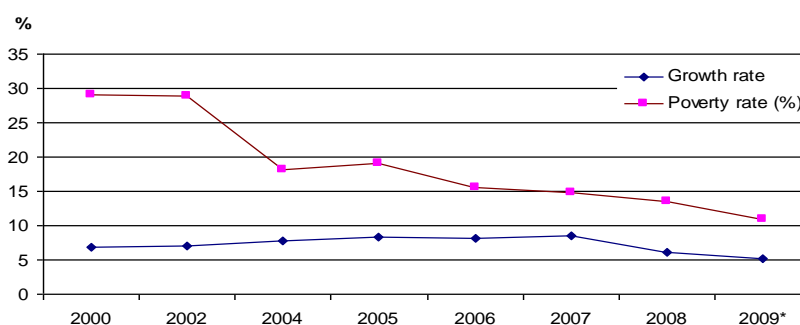
reductions in tariffs. Third, Vietnam entered into an agreement of cooperation with the European Union (EU) creating opportunities for trade and foreign investment. In 2007 Vietnam became the 150th member of the World Trade Organization (WTO). This membership of WTO was seen as an important turning point for Vietnam. It confirmed the economic integration of Vietnam into the world economy and consolidated the process of economic renovation and open door policies. This policy of “Moi Doi” and economic renovation created many opportunities for Vietnamese enterprises to compete into the world market.

3. Economic transition and development in Vietnam

3.1 Economic structural change

Since 2000, Vietnam experienced a decade of high GDP growth rate, increased industrialization and a decline in poverty rate. During this decade, Vietnam has moved from frequent bouts of food shortage to being the world's second largest rice exporter (after Thailand). In recent years, Vietnam has stood as model of development with an annual average growth of GDP of 7.5% and impressive reduction in poverty rates from 29% in 2000 to 13.4% in 2008 (VGSO, 2008).

Figure 1: Economic growth and poverty rate



Source: VGSO, 2008c and IMF estimates for 2009.

According to the analysts of the World Bank, economic growth in Vietnam remains at least at 5% despite the worldwide economic crisis of 2008 and later. An interesting question is to what extent structural change in the economy of Vietnam underpinned the high growth during the last decade.

Based on statistical data of VGSO, the shifts in economic structure during the past two decades or so are dramatic. The share of the agricultural sector in GDP dropped steadily from 38.7% in 1990 to 20.9% in 2009. The share of industry increased from 22.7% to 40.2% in the same period (see Appendix 1). The decline in share of agricultural sector in GDP is partly explained by the low growth rate and weak competitive position of most Vietnamese agro-products in the world market, although some have better competitive advantages such as fishery, coffee, and rice, accounting for approximately 50% of the total turnover. The story of the low growth rate of the agricultural sector during the last decades or so may be explained as follows. First, one reason is that the low level of mechanization leads to a high rate of loss in volume and decreased quality in the post harvest chain. According to a report of the Mekong Delta

Institute of Rice Research, the loss rate in the post harvest chain for rice is 15-20% in volume corresponding to 10-30% in returns. It is estimated that rice farmers in the Mekong Delta lose between 2.4 to 3.2 million tons per year or the equivalent of 912 to 1,260 billion VND (Dai, 2009). Second, the scale of agricultural production in Vietnam is small. A nationwide survey of the VGSO of agriculture and aquaculture 2006 reveals that plot size per farm is about 0.7 hectares and this size is being reduced due to influences of industrialization and urbanization. Third, Vietnam's rice export markets are mainly the low and middle-income economies with the market share of Asia (47.5%), Africa (25.6%) and Middle East (11.4%).

High growth of the Vietnamese economy is mainly due to the fast growth in manufactures and export industries. The share of industry in GDP went up from 22.7% in 1990 to 40.2% in 2009 (VGSO, 2009b). Due to differences in natural resource deposits, most heavy industry – such as coal mining, engineering works, hydroelectric plants, and etcetera - is concentrated in the North of Vietnam. The industrial sector in the South consists mainly of light and labour-intensive activities such as consumer goods, garment, shoes, and food and fishery processing. These sectors accounted for 45.6% of the total export value in 2008, as compared with that of 34% in 2000. The increased importance of industrial activity is the combined result of expansion of non-state business and the government development projects and programs like the expansion of Dung Quat oil filter manufacture, Ca Mau gas-electric-fertilizer project and hydroelectric plants. Also economic stimulus policies of more recent years such as the interest rate subsidy scheme for producers, the refinancing of bad corporate debt, income tax reductions to stimulating consumption, have positively contributed to keep growth at a stable level.

Non-state owned companies – including private firms, private collectives and household activities – and foreign direct investment (FDI) have contributed substantially to the expansion of the industrial sector. The share of non-state and FDI organizations in the total industrial output rose from 25% and 41% in 2000 to 37.1% and 44.4% in 2008 (VGSO, 2008). In contrast, the share of state-owned units decreased from 34% to 18.5% in the same period. The expansion of non-state and FDI units in industry is due to active operation, efficient use of resources and a modern update of technology including management and production.

3.2 Shifts in ownership structure

Since the introduction of the economic renovation program, non-state and FDI companies were encouraged in industries and commerce. That brings important and diversified resources such as capital, know-how and foreign currency to Vietnam's economy during the process of renovation. Information of VGSO revealed that the non-state and FDI companies grew annually at 7.2% respectively 11% in the period of 2000 – 2007, while this growth rate was only 7.1% for state enterprises in the same period (see Appendix 2).

Most of the FDI projects in Vietnam in the period of 1988 – 2008 invested in labour intensive industries such as food and drink processing, garment, shoes, engine and electronic part assembly. These labour intensive projects accounted for 61.7% of the total number of projects and for 49.7% of total invested

capital (VGSO, 2008). The concentration of investment into these labour intensive industries by the non-state and FDI companies does not only create employment opportunities for people, especially for rural migrants, but also contributes significantly to the economic structural change towards an industry-based economy of Vietnam in 2020.

The economic structural change of Vietnam during the past decades is very significant. This change generates employment and creates opportunities for many to escape from poverty. According to statistical data of the VGSO, Vietnam's change in economic structure caused a mobility of employment towards industry and service from agriculture. More importantly, this change leads to a rapid and substantial decline of the poverty rate in Vietnam. Furthermore, it contributes to an increase of income per capita after the renovation (see Appendix 3).

Table 1: Change in economic and employment structure (1990 – 2010)

Indicator	1990	2000	2010
GDP (VND billion)	42,000	442,000	1,980,914
Agriculture	16,254	108,290	408,068
Industry	9,534	162,214	814,156
Service	16,212	171,496	758,690
Employment ² (person thousand)	-	37,075	49,048
Agriculture	-	24,136	23,886
Industry	-	4,857	10,643
Service	-	8,082	14,420

Source: VGSO (2010), "Employment and National Account".

It is worth noting that the poverty reduction in rural areas was more impressive than in urban areas, for example the poverty rate in rural areas dropped from 44.9% in 1998 to 18.7% in 2008, the rate in urban areas declined from 9.0% to 3.3% in the same period. There is a support for the idea that positive and efficient impacts of development policies and government programs, complemented with efforts of NGOs, directed at the poor, ethnic minorities and remote areas had positive effects on the poverty reduction movement in the whole country. Important programs are the so-called "program 135" directed at supporting the poor and remote areas, "program 134" supporting ethnic minorities and "program 120" that focused on vocational training for rural labourers. Other projects are supported by donors or NGOs such as projects on enabling capacity for the poor community in rural area by CIDA-Canada, improving market participation of the poor by the International Fund for Agricultural Development (IFAD), and supporting micro finance for ethnic minorities and cooperatives by Trias-Belgium.

3.3 Demographic transition

The relationship between population and economic development is widely known (Todaro & Smith, 2009, 273). It shows that a country's economic development much depends on its population in terms of quantity and quality. The theory of demographic transition predicts different demographic development paths as the economy restructures from pre-industrial to industrial and post-industrial. The demographic transition is usually described in four or five stages. Pre-industrial societies (stage one) are characterized with high death rates balanced by high birth rates, keeping the population low with no growth. As soon as

² Employment labor refers to the population aged 15 and above participating into the labor market (VGSO, 2010, 50)

development kicks off, increases in food supply, sanitation and health conditions, death rates drop dramatically but birth rates stay high, resulting in fast population growth. The shift from a subsistent agriculture to more highly productive agriculture, urbanization, increases in wages and availability of contraceptives, triggers the third stage with dropping birth rates and population growth leveling off. Industrial societies eventually have low birth rates balanced by low death rates (stage four) so that population aging becomes an issue with population eventually declining (stage five) when birth rates drop below death rates.

Demographic transition theory also describes developments in Vietnam, which is now in stage three, with low death rates and rapidly falling birth rates, and a reduction in population growth. Table 2 presents changes of economic indicators and population concerns in two last decades. In the other hands, it provides an insight into a relationship between economic development and population growth as one of the more important results of Vietnam's renovation progress.

Table 2: Indicators of economic and population (1990 – 2009)

Indicator	Unit	1990	2000	2009
GDP	VND billion	42,000	442,000	1,658,000
GDP per capita in VND	VND 1,000	636	5,689	19,278
GDP per capita in USD	USD	98	402	1,064
Population	Million	66	77.6	86
Population growth	%	1.92	1.35	1.06
Population in aged 15-64	%	-	61.1	69.1
Population in aged 65 and above	%	-	5.8	6.4
Birth rate	‰	31	20	17
Death rate	‰	8	5.6	6.8

Source: VGSO, 2009a; VGSO, 2009b

The demographic transition in Vietnam is obvious from this table. As the economic restructuring progressed, with the share of agriculture in GDP at 38.7% in 1990 and declining to 20.9 in 2009, death rates – already low in 1990 declined slightly over the past two decades – but birth rates dropped dramatically from 31 per 1000 in 1990 to 17 per 1000 in 2009. Population growth slowed down from an annual rate of growth of 1.92% in the early 90s to 1.06% by the end of the last decade. High growth in GDP and slowing growth in population result to a rapid development of GDP per capita, rose from USD 98 to USD 1,064 in the same period. Besides, the increased proportion of population aged 15-64 from 61.1% in 2000 to 69.1% in 2009 created the human resource for economic development in this stage. While, death rate increased slightly in recent 10 years was due to an increase in the number of elderly.

It can find the fact that the decline in population growth in the past decade is considered as one of the greatest successes of Vietnam's development. It is a combination of the effects of economic development – such as productivity growth in agriculture, urbanization and industrialization – and family planning programs, widely popularized in most rural areas with various forms such as posters and meetings of women in villages around the countryside.

With the increase of income and decline in poverty comes an improvement in health and educational attainment. Table 3 shows positive changes of life quality and education of Vietnam as real evidence on one of striking achievements of economic development in last decade, as follow.

Table 3: Health and education attainment in Vietnam (1990 – 2009)

Indicator	Unit	1990	2000	2009
Life expectancy	Year	65	69	75
Infant mortality rate	‰	44	31	16
Literacy rate	%	68	90	94
- Male	%	-	94	96
- Female	%	-	87	92
- Urban	%	-	95	97
- Rural	%	-	89	92
Children above 5 year old attended school	%	-	90	95
Population above 15 year old attended high school	%	-	16	26.4

Source: GSO, 2009a.

Increasing in life expectancy, but a decline in infant mortality rate has been one of the most important demographic changes in recent two decades. This change reflects an improvement in quality of life and of health care, arising from higher per capita income. Dealing with educational achievements, statistical data displayed in Table 3 shows that adult literacy rate – those are 15 year old and older – rose quickly from 68% in 1990 to 94% in 2009. It is worth to note that better improvement in access to education for women and residents in rural areas. More detailed, educational gaps between men and women, or rural and urban narrowed gradually. Additionally, the increase in children proportion above 5 year old attending school and population above aged 15 completed high school program contributed significantly to improve basic knowledge, but also enabled quality of human resource. Hence, it can be found that improvement in educational attainment has been substantial as an positive outcome of the program on compulsory education in primary school in last decades (NA, 1991).

A global indicator to measure the development level of a country is the human development index (HDI), estimated by UNDP. It is a composite measure of three dimensions of human development namely health, education and standard of living.

Vietnam is ranked 113th in the list of a total of 169 countries for which the HDI is calculated by the United Nations Development Program – UNDP. The UNDP (2010) classifies countries in four groups – each group contains about 40 to 45 countries - namely very high, high, medium and low. Vietnam is listed as “medium” in terms of the HDI.

Table 4 summarizes the results of the past two decades for Vietnam, the East Asia and Pacific area and the World. Comparing the HDI in 2010 with 1990 (ratio) it is clear that human development in Vietnam outpaced human development in other countries within the East Asia and Pacific area and the rest of the World.

Table 4: Human development index Vietnam, East Asia and Pacific, World

HDI	Vietnam	East Asia and Pacific	World
1990	0.407	0.474	0.526
2000	0.505	0.567	0.570
2010	0.572	0.650	0.624
Ratio 2010/1990	1.405	1.371	1.186

Source: UNDP, 2009, available at <http://www.hdrsstats.undp.org>

Recently, the UNDP also estimates an inequality adjusted human development indicator – the IHDI. This indicator takes into account the degree of equality of the different components of human development. A ranking on the basis of the IHDI ranks Vietnam at position 82 which is 31 positions better than a ranking based on the uncorrected HDI. This is a clear indication that in terms of distribution of human development Vietnam performs quite well as compared to other countries with a similar level of human development.

Despite the promising results of the last two decades or so, some concerns about the process of socio-economic development in Vietnam remain. First, inequality in economic development of Vietnam seems persistent as a result of basic differences of the natural and geographic conditions as well as different developments of public infrastructure across regions and between rural and urban areas. Second, the income gap between rural and urban areas is very large and income convergence is slow. Third, more than 10% of the total population still lives in poverty condition. Fourth, the strategy of economic development towards industrialization had negative impacts on the environment. Finally, urbanization also had negative effects on agriculture and on the employment of rural people.

4. Socio-economic development of the Mekong Delta

The Mekong Delta is one of the three leading regions of economic development in Vietnam, together with the Red Delta and the Southeast region. The comparative advantage of this region is in agriculture as natural conditions are well suited for agricultural production as well as the development of aquaculture. Historically, the Mekong Delta is the granary of the whole country.

4.1 Location and population

The Mekong Delta, located in the Southern part of Vietnam, covers an area of 39,000 sq. km (or 12.2% of the total area of Vietnam) and has a population of over 17.2 millions (or 20% of the total population of Vietnam) (VGSO, 2009b). This region has 13 provinces namely Long An, Tien Giang, Ben Tre, Tra Vinh, Vinh Long, Dong Thap, An Giang, Kien Giang, Can Tho, Hau Giang, Soc Trang, Bac Lieu and Ca Mau. Annual statistical data of the VGSO estimates that the Mekong Delta is the second populous region in Vietnam (after the Red Delta region in the North) with its average density of 425 persons per sq. km, compared to 260 persons per sq. km for the national average density. Urbanization progress of the Mekong Delta region has partly contributed to a steady increase of the total population in urban areas, which rose from 17.2% in 1999 to 22.8% after 10 years. In fact, the increase of the urban population rate was caused by the following phenomena: the natural population growth, immigration flows, and the change in level of administrative units. For example, when investments in the public infrastructure are

made on the village level – in rural areas – (e.g. electricity, clean-water, schools, health units, public transport) these rural areas are renamed and categorized as 'urban areas'. In other words, a proportion of the current urban residents were previously categorized as rural residents before they were changed into new administrative units, but officially statistical data of this change is not accurately known yet. As forecasted by experts from the Vietnam's Ministry of Construction, the rate of the urban population in this region would be at 7 - 7.5 million (or equivalent to 35%) in 2020 and be risen to 40% - 50% till 2050 (Thanh, 2011).

4.2 Economic development in the Mekong Delta

The Mekong Delta, one of the best rice growing areas of the world, provides over 50% of the total rice production and 90% of rice exports of Vietnam. It not only plays a crucial role in ensuring national food security, but also contributed over 10% in GDP of the country during the period of 1996 – 2010 (see Appendix 4), ensuring major exports of rice, shrimp and pangasius fish.

Compared with the rest of the country, this region persistently achieved a higher growth rate of over 10% in the period of 2002 – 2009. Economic growth was also translated into poverty reduction. For example, GDP per capita increased from 402 USD in 2002 to 973 in 2009 accompanied with a reduction in the poverty rate from 17.5% in 2002 to 9.4% in 2009 (see Appendix 5).

Due to comparative advantages of fertile soils and abundant fresh-water sources, the agricultural sector plays an important role in the economy of this region, accounting for about 39% in GDP (VGSO, 2008). However, as a result of the economic transition strategy of the whole country, the Mekong Delta is also shifting its economic structure from traditional agriculture to industry and service, as shown in Figure 2, the agricultural sector is also transforming. More recently, many crops are being replaced by an expansion in aquaculture. This transition of the agricultural sector is partly due to market factors such as increases in relative prices and an expansion of domestic and foreign demand.

Figure 2: Structural change in the Mekong Delta



Source: VGSO, 2008

Agricultural production and aquaculture development

Due to many advantages of natural conditions, the Mekong Delta has a diversified set of crops such as rice, fruits and vegetables. Rice is the most important crop of this region and it provides the country

national food security. It is estimated that the Mekong Delta's rice growing area covers 1.8 million hectares and accounts for 86% of the total cultivated land of the whole region (Dang & Danh, 2008).

However, it is a fact that influences of policies in stimulating the structural change of economy result in a decline in rice growing area during the last decade. Despite the decrease in planted area, the output is increasing because farmers can produce 2 -3 crops a year. Rice production of the Mekong Delta plays a key role in ensuring national food security and supplies 90% of Vietnam's total rice exports to the world market (Ha, 2010).

Table 5: Rice output and export of the Mekong Delta and Vietnam (in million tons)

Year	Vietnam's output of rice	The MD's output of rice	Exported output of rice
1990	19.2	9.5	1.5
2000	32.5	16.7	3.4
2005	35.8	19.2	5.2
2007	35.9	18.6	4.6
2008	38.8	20.6	4.7
2009	39.0	20.6	6.0

Source: Can Tho Newspaper, issued on January 14, 2010. Available at <http://www.giongnongnghiep.com/nong-nghiep-nong-thon/254-an-ninh-lng-thc-quc-gia-nhin-t-va-lua-bscl-k-1.html>

The decline in rice growing area has several causes. First, it is the result of the urbanization process in Vietnam in general and in the Mekong Delta in particular. According to the estimation of Vietnam Ministry of Agriculture and Rural development, the rice growing area in Vietnam declined by 255,300 hectares in the period of 2000 – 2008 of which 205,400 hectares in this region. More details, a part of the cultivated area in some provinces of the region has been shifted into the development of projects in tourism and the development of industrial zones. Such reduction of cultivated area affects not only rice output of the whole country, but also affects the livelihood of people and raises social issues in rural areas.

Second, the reduction of the rice growing area resulted from the so-called “Government resolution No 09/2000” aimed at diversification in agriculture by encouraging a transition from low yield rice production to aquaculture production. As a consequence, hundred thousands of hectares of cultivated area in the Mekong Delta were transferred to the aquaculture production after the effective time of this resolution (Dang & Danh, 2008).

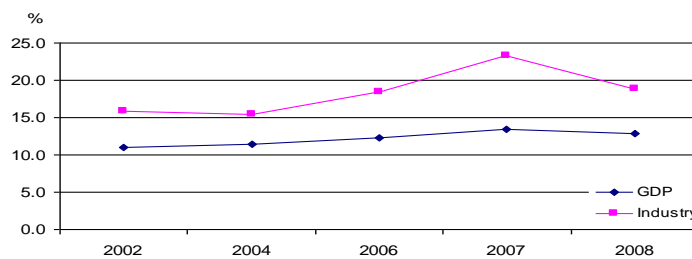
Third, Vietnam is one of the most disaster-prone countries in the world and especially subject to water related risks. In a study on flooding in the Mekong Delta, Ninh (2007) warned severe damage by water related disasters such as tropical storms, floods, drought and salinity related to climate change. Some 70% of the population of Vietnam is at risk from water-related disasters. About 1 to 1.2 million hectares of the region are submerged for 2 to 3 months each year due to flooding. These annual floods lead to serious damage or loss of crops, animals and property.

Industrial development

In recent years, the industrialization of the Mekong Delta is closely associated with the government strategy fostering structural change with development and growth of the economy and generation of employment for rural labourers as major objectives.

On March 14th 2008 the government of Vietnam issued a decree (“decree 29”) on the development of industrial zones, namely specialized areas for manufacturing companies and industry-related services. Industrial zones are established by the government and operationally managed by a local authorized agency, namely the so-called “Provincial management board of industrial zones”. By the end of 2008, the MD has 111 industrial zones with 99,896 enterprises differentiated in scale, ownership and sectors as well. The number of companies in the Mekong Delta rose by 15,861 units compared to 2005. In general, the contribution of the industrial sector to the GDP of the MD is rather modest – namely 27% in GDP – compared to the share of industry for the whole of Vietnam – viz., 39.7%. It is clear that agriculture is the traditional and most potent sector of the region, and global growth of GDP of this region in past years was more influenced by agriculture than industry.

Figure 3: GDP and industrial growth in the Mekong Delta



Source: VGSO, 2008.

After the renovation it is non-state and FDI companies that virtually dominate in industry, accounting for over 90% of all companies. Due to closeness to sources of input materials, most major industrial activities in the Mekong Delta are in food and drink processing, feed production and fishery processing. For example, by 2008 the Mekong Delta has 133 factories of seafood and fishery processing with an annual capacity of over 690,000 tons a year.

It is important to note that a majority of manufacturing companies are small-scale outfits, with backward or outdated equipment and production methods, lack of capital, poor management skills or limited understanding of markets. About 55% of these units have less than 1 billion VND of capital, compared to 41% for the whole country (<http://www.mekongdelta.com.vn>), 63% of all firms have less than 10 workers and only 29% of firms had 10 – 49 workers. The limited scale of production is not conducive to create many employments to local labourers from the region. More importantly, these industrial zones are often seen as the most desirable destination for labourers searching employment, but those zones only offer about 54,200 jobs. Therefore, an interesting question is why the large number of created industrial zones could not generate more employment? A closer look at the operational situation of these industrial zones offers some insight.

According to statistics of the supervising management board of the industrial zones, only 5 out of 111 industrial zones in this region have good operational results including Tra Noc (in Can Tho), My Tho (in Tien Giang), Thuan Dao (in Long An), Sa Dec (in Dong Thap) and Hoa Phu (in Vinh Long). Of these five industrial zones most land is leased to investors. For example 98% of 290 hectares of area in the Tra Noc industrial zone of Can Tho City was leased to 168 enterprises creating 20,000 employments.

However, a large number of industrial zones are currently left in fallow, such as Dong Thap, An Giang, Soc Trang and many others. There are several reasons why many industrial zones in the MD are still left fallow. First, many provinces rushed in building industrial zones hoping it would mean the fastest way to gain rapid economic development and did not plan the locations of these zones carefully, so many zones are only suitable for agriculture development. Second, many zones lack good infrastructure and road and waterway connections. This is the most important factor why most of the industrial zones could not attract many investors during the past period. For example, there is only a single road connecting the provinces of the Mekong Delta and Ho Chi Minh city, taking on average about 4 hours of travel for distance of 170 km between Can Tho and Ho Chi Minh. Such high time cost of transportation of goods is not attractive to investments.

As indicated earlier, industrial progress in the Mekong Delta during the past decade has not generated much employment for rural labourers. On the other hand, some 24,000 hectares of agricultural land were shifted to that for industry. This rapid development of the industrial zones in the Mekong Delta has caused some concerns.

First, such a change in land use implied a decline in the rice growing area which is not without implications for national food security and rice exports from Vietnam. Recently, agricultural experts strongly warned about the consequences of these shifts in land use.

Second, it also leads to unemployment of farm labourers. As two-thirds of all labourers in the Mekong Delta are unskilled, this additional increase in unskilled unemployment is a serious problem.

Therefore, transition of labour force from agriculture to industry and services is very limited. According to statistics of Vietnam Chamber of Commerce and Industry - VCCI - in Can Tho, during the period of 2000 - 2008, the transition of the labour force was lower than the economic structural change.

Table 6: Structural change of GDP and labor force in the Mekong Delta, 2000 – 2008 (%)

Sector	Change GDP share	Change labour share
Agriculture	- 12	- 7.0
Industry	+ 7	+ 3.5
Services	+ 5	+ 3.5

Source: VCCI in Can Tho.

Environmental pollution -especially of water resources - is the biggest concern of policy makers and inhabitants living in the areas surrounding the industrial zones. According to the Southwest Office of

Environment Protection, annually 47 million m³ of wastewater and 222,000 tons of solid waste from industrial zones in the region were directly disposed to the surrounding environment (mainly rivers, canals). Most provinces cared only for stimulating investment, but ignored the control of waste treatment in the industrial zones.

Trade and service development

In comparison with trade and service development of the whole country, this sector of the Mekong Delta is being slowly developed. Statistics of the GSO (2008) shows that the share in the total value of domestic trade of this region was annually 19.4% of the whole country in the period of 1996-2008, compared to this figure for the SE region and RD region – viz., 34.5% and 21.6% in the same period.

However, the Mekong Delta has comparative advantages of major exports such as shrimp and pangasius fish due to its natural environment of fresh-water resource from the Mekong river and as a coastal area. These exports of this region account for 52% in volume and 55% in value of aquatic exports of Vietnam.

Dealing with the international trade, the Mekong Delta always keeps a positive balance of trade. Most imports are used for direct consumption and construction (e.g. food and steel), not for production or industrial equipments. Most materials of agricultural production and husbandry such as fertilizers, chemicals, feed, and etcetera are mostly produced domestically either by domestic or by foreign factories located in Vietnam (e.g. Cargill, CP, Bayer, Southern chemical and fertilizer company, Binh Dien fertilizer company, An Giang crop protection chemical company, etcetera).

With a population exceeding 17 million, the Mekong Delta region is seen as a potential retail market, especially to foreign retail firms like Metro, Big C, and Carrefour. Recently, a large number of retail distributors, such as Co-op Mart, Metro and Vinatex have widely established and developed their supermarket networks in most locations of this region.

Table 7: Total value of exports and imports of Vietnam

Unit: million USD, %

	2000	2002	2004	2006	2008	2010
Exports	14,483	16,706	26,485	39,826	62,685	72,192
% MD	9.5	9.9	9.3	9.0	9.1	9.5
Imports	15,636	19,745	31,969	44,891	80,714	84,801
% MD	2.3	2.1	2.3	2.6	2.9	3.0

Source: VGSO (2010).

Tourism is another important service industry. The Mekong Delta is a region with a diversity of cultures, a warm climate and well-known natural beauty. With the extensive network of waterways, canals and tributaries of the Mekong river, the most enjoyable ways to experience river life is by making boat trips enabling visitors to enjoy the special way of business between farmers and traders on floating markets.

However, in comparison with the tourism in other regions of Vietnam, the Mekong Delta's tourism sector has just starting to develop in recent years. According to the Can Tho Statistical Office (CTSO), the number of people visiting this region increased from 924,395 in 2000 to 3,595,158 in 2007. Among those, foreigners accounted respectively for 32% and 20.4% in two periods (CTSO, 2008).

First, tourism of this region is facing with many challenges. There is no master plan of tourism development, so that many overlapping tours across the province lead to excessive competition.

Second, there is a lack of human resources with sufficient knowledge and quality for the tourism business. There are only two institutes of tourism training, one offers training for tour guides and reception staffs in hotels. The other provides a bachelor program of tour management and is offered by Can Tho University.

Third, the tourist tours and products on offer are not so special that tourists visit.

Fourth, weak road network is a main reason that explains why tourism underdeveloped.

Recent seminars were held, recognizing these problems and suggesting remedies to foster tourism development such as by designing a master plan, more investment in infrastructure (mainly road network), training human resources, cooperation among provinces, promoting tourism trademarks and so on.

4.3 Main factors affecting the economic development in the Mekong Delta

Public infrastructure

Public Infrastructure has long been viewed as a major determinant of economic development (Rives & Heaney, 1995). It includes the public transport system, clean-water supply, telecommunication networks, and other services. In this regard, we focus on several main indicators to reflect a mutual relationship between public infrastructure and economic development in the Mekong Delta, that includes road and river port transports, paved roads accessible to commune or village by car, and households provided with basic necessities - clean water, electricity, and internet access.

As long known, the public infrastructure of this region is in the poorest condition as compared to the rest of the South of Vietnam, especially concerning the transportation of goods and the logistic services. According to evaluations by experts from the Vietnam Port Association (VPA), small-sized ports and narrow rivers are the major constraints for goods transportation and trade exchanges from this region to other regions of Vietnam, especially for the transportation of exports. For example, the loading capacity of river ports only meet about 30% on demands, largely due to the impossibility for container ships above 10,000dwt to access these ports. It is clear that this limitation caused additional increases of costs for export enterprises, arising from that the transport of the goods by road – at high charges - to larger ports in Ho Chi Minh city is real.

Most striking examples are Bac Lieu and Ca Mau provinces - two leading shrimp exporters of Vietnam, accounting for one-fourth of the total aquaculture export value in the whole country (or equivalent to 1 billion USD in 2009). The transport of the export goods from these two provinces to Ho Chi Minh often

takes at least 8 – 9 hours for only a distance of 350km. Furthermore, a truck is allowed to load only 20 tons or less. These limitations caused substantial increases in the costs of the operation for enterprises and result in low competitive advantages in domestic and foreign markets.

On the community level, rural road networks play a necessary role in enabling people to have a better access to market information and also in creating opportunities for them to engage in non-farm jobs (e.g. motor-taxi, selling gasoline, grocery stores, and so on). Data from the VHLSS 2006 shows that the Mekong Delta's proportion of communes – having paved road accessible by car to the center of the commune and the village - is respectively only 86% and 60%, the average rate of the whole country is respectively 97% and 78%.

Dealing with these living conditions, a large number of inhabitants – mainly in rural areas - usually use direct water resources from canals or rivers for drinking, cooking, washing and so on. According to results of the VHLSS 2006, only 28.1% of the total households in this region access to clean-water sources. 93% of the total households use electricity instead of oil and firewood for the purpose of living and production (see Appendix 6).

Human resource

Population and education are closely linked to economic development (Todaro & Smith, 2009). At the national level, rapid population growth causes more pressures on education - teaching staffs and schools. At the household level, larger households – with many children, but with limited financial source – can often not cover the costs of education for all family members. As a consequence, one or some members have to accept to drop out of school to make a living.

Needless to say, education plays a key role in the economic development of a country and improving GDP per capita, as illustrated by Mincer, 1974. In this regard, we use information of population in aged bracket, labour force and its qualification to investigate the impact of human resource on the economic development in the Mekong Delta.

Using the population structure by age bracket aims to reflect the relationship between the labour force and the dependency ratio. The dependency ratio measures the percentage of people in aged bracket of 0 – 14 and 60 and older. Information from the 2009 census of population displayed in Table 8 shows that in the Mekong Delta 67.3% of the total population was in the working age of 15 – 59, compared to the national average share, viz, 65%. Additionally, it is worth noting that a majority lives in rural areas and primarily depends on farm production.

Table 8: The Mekong Delta' population by age bracket, urban and rural

Age bracket	Population		Population structure	
	Person	%	Urban (%)	Rural (%)
0 – 14	4,185,453	24,4	23.5	76.5
15 – 59	11,561,060	67,3	21.2	78.8
60 and above	1,432,363	8,3	22.0	78.0
Total	17,178,876	100,0	-	-

Source: GSO, 2009b.

Based on a report on labour and employment of the Ministry of Labour, Invalids, and Social Affairs (MOLISA) in 2007, we find that 51.7% of the labour force in the Mekong Delta was engaged in the agricultural sector. Most notably, more than one-third of these labourers had a very low educational level and did not complete primary school. Labourers in industry and service sector had a higher educational level (see Appendix 7). Dealing with qualifications, the statistics from the MOLISA also indicate that over 66% of the total labour of this region is unskilled and never attended vocational programs. Especially, the unskilled share in the agriculture is greater than that in other sectors (see Appendix 8).

Reasons why the Mekong Delta is a poor region of human resource

Despite the important contributions to the economy of Vietnam, the Mekong Delta is also known as the most depressed region on human resource. Some striking reasons are identified as follows:

First, historically the Mekong Delta has so rich natural resources that people almost depended on exploitation of these resources for survival. And, they often ignore investment into educational attainment for themselves and as well for their children. They explained that “a person after schooling will return to farm production – almost based on experience”. To prove this story, we can take a look at the human resource in the Central Coast (CC) region – severe natural conditions due to arid soil and mountainous location. These disadvantages induce people in this region to invest more into education as a way to escape from poverty. The information presented in Table 9 shows the main indicators of education attainment and investment across regions and gives deeper insights into this matter.

Table 9: Educational attainment across regions, 2008

Indicator	Unit	MD	CC	Country
Never go to school	%	10.0	6.3	7.5
Literate population aged 10 and older	%	90.8	94.4	93.1
Population aged above 15 had high school diploma	%	8.1	17.9	14.1
Population aged above 15 had university diploma	%	2.4	3.8	5.1
Annual educational expense per capita by household	1,000 VND	1,494	1,578	1,844
Educational share in total household expenses	%	4.3	9.1	6.4

Source: GSO, 2008.

The table shows that the overall educational level of the Mekong Delta is lower than that of the CC region and of the national average. Despite having a higher GDP per capita, household's investment into education of the Mekong Delta was lower than that of the CC and the average level of the whole country.

As a consequence, the population rate of having educational skills and certificates in this region is usually lower than other regions in Vietnam.

Second, the situation of dropping out – pupils quit school before they graduate - is frequently assessed by scholars as the most important determinant of low-qualified human resource in the Mekong Delta region. According to the synthesis report of the Vietnam Ministry of Education and Training, in the academic year 2007 – 2008, the Mekong Delta's dropout rate was 3.1% and higher than the average rate in whole country, viz, 1.37%. Additionally, the result of the VHLSS 2008 also documented that the percentage of communes having dropping out in this region was likely far higher than the average share of the whole country, despite these shares were on the decline over time (see Appendix 9). In general, the main reasons for the dropout situation in Vietnam and particularly in the Mekong Delta are: economic difficulties of family, lack of care from parents, work pressure, the long distance to schools, and so on.

Consequences of low-qualified human resource

As expected, the relationship between education and development is widely and profoundly documented in both the academic and the empirical literature. A well-educated person is expected to find a better job and have higher feelings of well-being. On the other hand, the returns of investment in education also have positive contributions to the economic development of a country, dealing with labour productivity. For example, one study of education and development in Vietnam done by Moock, Patrinos, & Venkataraman (2003), they indicated that on average labourers can earn 5% additional income as these labourers studied one year of schooling longer. Furthermore, gender gaps in income arise from the different impacts of the effect of education differences among labourers in various sectors – including public and private.

Notwithstanding the large labour force, low-qualified human resource is a serious constraint to the Mekong Delta in economic change progress towards modern industry and services. One of the most striking results is that a shift of labour share out of agricultural sector is likely to realize slower than changes of the economic structure. In other words, farm labourers – unskilled - are less likely to have a chance to change their employment situation during the economic reform progress.

Furthermore, little employment in non-farm activities in rural areas is also a great problem for unskilled labourers. Statistics from the 2009 survey of labour force and employment indicate that the unemployment rate in the Mekong Delta is averagely 3.7%, as compared to only 2.8% in the whole country. Most notably, female labourers are more likely to suffer from the disadvantageous influences of the labour market, for example 60.2% of the unemployed are women (GSO, 2009b).

An economic transition towards modern industry and service is always expected to attain a high and stable growth. However, weakness of public infrastructure and low-qualified human resource are the most important constraints of this progress in the Mekong Delta region during the last decade. These disadvantages caused a slow change of GDP and labour share, a relatively high unemployment – due

partly to landlessness from urbanization and industrialization, and less attractiveness to investment. Meanwhile, employment opportunities in the SE region – especially Ho Chi Minh and Binh Duong – are offered to both skilled and unskilled labourers. More specifically, the concentration of investment – mostly by FDI and private – into labour intensive industries generates employment opportunities for people, especially for migrants from rural areas. As a consequence, in recent years a number of rural emigrants from surrounding regions and from particularly this region moved to the SE region.

5. Internal Migration in Vietnam

Within a country, migration primarily relate to most of important events such as politics, war, religion, changes in policies on population redistribution and economic transition in the given period. On the aspect of individuals, migration may associate with their purposes, for example employment, study, and marriage. Historically, Vietnam experienced in striking movements of the migration ranging from the feudal state in the mid-19th century to the socialist state in the present period. Based on their study on the internal migration in Vietnam, Anh, Goldstein, & McNally (1997) indicated that three-fifths of the present territory of Vietnam was established by the migration flows of the Kinh (Viet) population, these moved from the Red Delta in the North to the Highlands and the Mekong Delta in the South for the exploitation of land. Hence, the description of the internal migration along with the development history of Vietnam is very important and gives a broader insight into this matter.

5.1 Migration in the period of the economic transition

Migration flows in this period - more spontaneous – arise from main reasons, as follows:

First, the abrogation of collectivism in the agricultural sector created many opportunities for farmers not only to decide their production, but also to engage in non-farm jobs outside of the village.

Second, the Law on land management approved in 1993 offered land owners more chances in the transfer, the pledge, and the inheritance of land. In other words, this law created many opportunities for investors to expand production and thus to increase the demand for labour.

Third, by the later 2000 the government issued the Law on enterprises aiming to make a legal regime for investors – including private and FDI – to expand production and trade in Vietnam. As a consequence, an increase in the demand for labour including migrants from rural areas is real. Statistical data of the VGSO (2009b) showed that these enterprises absorbed nearly 90% of the total labour force and their share in the GDP accounted for 59.3%.

Finally, as noted earlier, inequality in per capita income across regions in Vietnam – an opposite side of the economic transition progress – is one of the most vital reasons inducing people to migrate.

Based on the statistical data from the VGSO, there estimated nearly 4.35 million people changed their places of residence in the period of 1994 – 1999. Among these migrants, 55% moved within the province

and 45% moved across provinces. More interestingly, the rural to urban migration was a dominant flow in the internal migration in Vietnam, accounting for 27.2% of the total migrants.

5.2 Migration in the recent decade

On November 29th 2006, the National Assembly of Vietnam issued the Law of residence stipulating the rights and the responsibilities of Vietnamese migrants in Vietnam. Overall, the regulations of this law have effects on migrants in some aspects, as follows:

- Emigrants are free to leave their place of residence in a certain period without having to notify local police. That is seen as a basic change of the law.
- Second, immigrants are more convenient in accessing and applying for procedures of the residence registration at destination, due to improvements of the communication means – including electronic application form, time of application, corresponding contacts.

Generally speaking, the application of this law in practice creates more advantages and conveniences for migrants during their migration process, dealt with save on costs and time.

Table 10: Internal migration in Vietnam (1999 – 2009)

Type of migration	Number of emigrant (1,000 persons)		Emigrant rate (‰)	
	1999	2009	1999	2009
In district	1,343	1,618	19	21
In province	1,138	1,709	16	22
In region	2,001	3,398	29	43
In country	1,334	2,361	19	30

Source: GSO, 2009a.

Table 10 shows that internal migration of Vietnam was increasing in the period of 1999 to 2009. Inter-provincial and inter-regional migration had been the most striking flows in Vietnam, which rose by nearly 1.5 times after a decade. In general, Vietnam's emigrant rate - per 1,000 populations - averagely increased from 20‰ in 1999 to 30‰ after 10 years. Preliminarily, employment opportunities and close distance to home are the most important reasons inducing people to move across regions, some other causes of migration shall be examined in further papers.

In sum, the pattern of the internal migration in Vietnam has substantial changes during the development history – particularly the late economic transition period. It is worth noting that the migration pattern in that period is more spontaneous and probably depended on economic opportunities in the places in which have more developed economic conditions.

6. Conclusion

Reviewing the economic development and the internal migration of Vietnam in its historical context, the conclusion is reached that the economic development of Vietnam during the recent decades has been remarkably affected by the economic transition concerning policies in the liberalization of economy with the effective participation of private and FDI sector, development of industry and services and so on. It

can be seen that the achievements of the economic transition of Vietnam are very impressive and have brought it to become a striking example among developing nations. It is widely known that these contributions are translated into the important improvement of income per capita and shifted Vietnam into the list of the lower-middle income countries – 996 USD to 3,945 USD - in 2010 (WB, 2010).

Internal migration is not a new phenomenon in Vietnam. However, the nature and the scale of migration flows are primarily different in various periods, in various motives during the history and development. There are two main periods of the internal migration in Vietnam. First, in the first period of renovation process, large movements to new economic zones occurred primarily as a strategy of resettlement of population and national security. Second, present migration flows relate to economic opportunities in big and industrial cities.

An increase in the current flows of the internal migration, especially the rural to urban migration is considered as a response of the economic transition. It implies that regional inequalities of income, employment, economic development etceteras cause movements of people from rural to urban areas, from least developed to more developed areas.

It has been argued that the overall description of the socio-economic development of the Mekong Delta is significant to be able to explain reasons regarding the migration trend of this region. First, the weak industrial development and high population density are seen as two main factors driving people to look for a new job in other places. Second, the low return of agricultural sector is also an important element pushing a proportion of labour force out of this sector. Therefore, a core relationship between economic transition and internal migration in Vietnam and in particular the Mekong Delta region is substantial and being of major concerns of policy-makers in stimulating economic development and attracting labour force for development.

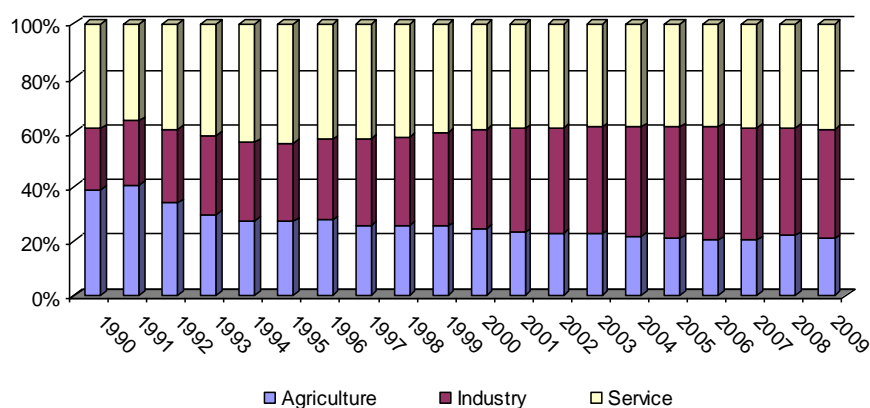
REFERENCES

- Anh, D.N, Goldstein, S. & McNally, J. (1997). *Internal migration and development in Viet Nam*. International Migration Review 31:312-337.
- Binh, T.V. (2009). *Analysis of Viet Nam's Pangasius Industry in Transition 1995 – 2007*. Applied Economics Antwerp University, Antwerp, Belgium.
- Boothroyd, P. & Nam, P.X. (2000). *Socio-economic renovation in Vietnam: the origin, evolution and impact of Doi Moi*. Pasir Panjang, Singapore: Institute of Southeast Asian Studies.
- CTSO (2008). *The Statistical Yearbook of 13 provinces in the Mekong Delta region*. http://www.mekongdelta.com.vn/mekongdelta/Solieu/Thuongmai.htm#Bảng_3.4: Can Tho Statistical Office.
- Dai, B. (2009). *Change of rice post-harvest technology in the Mekong Delta: should do immediately (in Vietnamese)*. In Newspaper of Sai Gon Liberation <http://www.vietlinh.vn/dbase/nsmShowContent.asp?ID=1573>
- Dang, N H & V T Danh. (2008). *Economic development of the Mekong Delta in Viet Nam*. Center for Development Studies, Groningen University, Groningen, Netherlands.
- GSO. (2006b). *The result of Vietnam's household living standard survey in 2006*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2008b. *The result of Vietnam's household living standard survey in 2008*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2008c. *Statistical Yearbook of Vietnam 2008*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2009a. *The 2009 census on population and housing*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2009b. *The 2009 census on population change and family planing*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2009d. *Report of survey on labour force and employment 2009*. Ha Noi, Vietnam: Statistical Publisher.
- —. 2009e. *Statistical Yearbook of Vietnam 2009*. Ha Noi, Vietnam: Statistical Publisher.

- Hung, N.Q. (2004). *Some aspects of the exodus of the Catholic residents in the North after the Geneva agreement in 1954 (in Vietnamese)*. Religious Studies 30:22-40.
- Mai, N. (2007). *Overview of 62 years of economy in Viet Nam*. Investment Newspaper (in Vietnamese), Oct 10.
- MOLISA. (2007). *The result of labour and employment survey in 2007*. Ha Noi, Vietnam: Ministry of Labour, Invalids and Social Affairs.
- Moock, R.P., Patrinos, A.H. & Venkataraman, M. (2003). *Education and earnings in a transition economy: the case of Vietnam*. Economics of Education Review 22.
- NA. (1991). *Decree No. 88 on the compulsory primary education program: National Assembly of Vietnam*.
- Rives, J.M. & Heaney, M.T. (1995). *Infrastructure and local economic development*. Regional Science Perspective 25:58-73.
- Thanh, T. (2011). *The Mekong Delta will become a global granary of agro-products* (Đồng bằng sông Cửu Long sẽ là vùng nông sản lớn toàn cầu) in Economic Forum in the Mekong Delta: http://www.mekongdelta.com.vn/mekongdelta/news.asp?cate_id=59&news_id=2036&sub_id=59.
- Todaro, P M & S Smith. 2009. *Economic development* London: Harlow.
- UNDP. (2009b). *Vietnam's human development 2009*. In Report of human development. <http://hdrstats.undp.org/en/countries/country> United Nations Development Program.
- —. (2010). *UNDP releases 2010 Human Development Index*. <http://hdr.undp.org/en/media/PR3-HDR10-HD1-E-rev4.pdf>: United Nations Development Program.
- WB. (2010). *Country and Lending groups*. World Bank.

APPENDICES

Appendix 1: Economic structure change of Vietnam



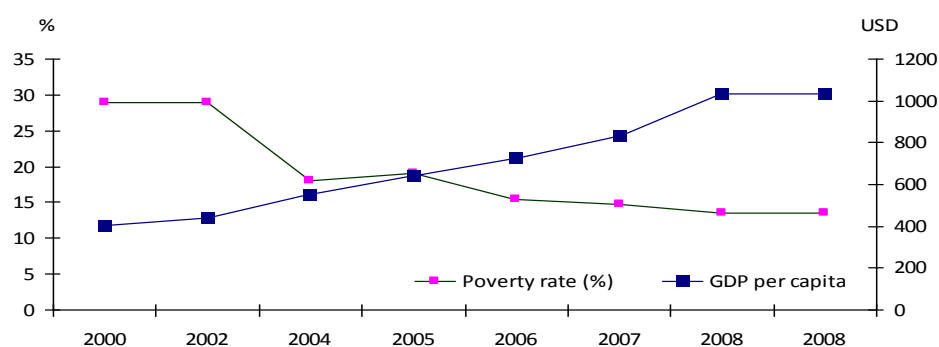
Source: GSO, 2009e.

Appendix 2. Growth rate by economic sectors in Vietnam

Ownership	2000	2001	2002	2003	2004	2005	2006	2007
State	7.7	7.4	7.1	7.7	7.8	7.4	6.2	5.9
Non-state	5.0	6.4	7.0	6.4	7.0	8.2	8.4	9.4
FDI	11.4	7.2	7.2	10.5	11.5	13.2	14.3	13.0

Source: GSO, 2008c.

Appendix 3. GDP per capital growth and poverty reduction in Vietnam



Source: GSO, 2008c

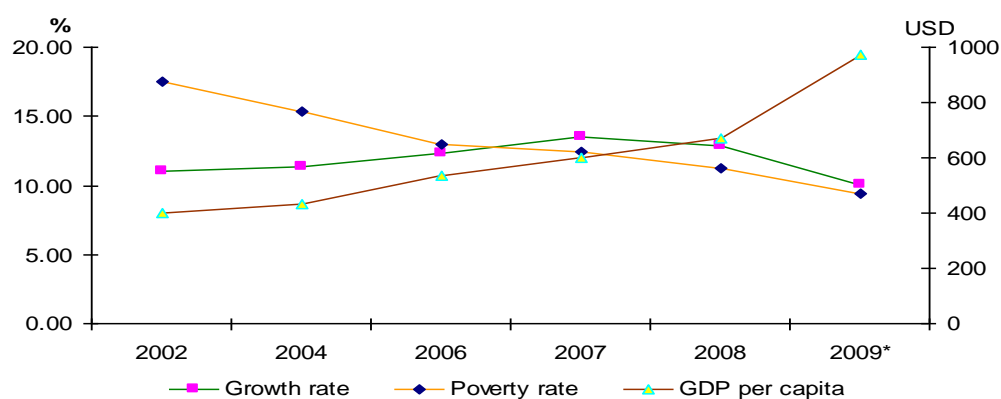
Appendix 4. Mekong Delta's contribution to the GDP of Vietnam

Period	%
1996 – 2000	17.4
2001 – 2005	16.7
2009	10.5
2010*	11.6
2020*	13.3

* Estimated data by MDEC

Source: <http://www.mdec.com.vn>

Appendix 5. Economic growth, poverty and GDP per capita in the MD



Source: GSO, 2008c and *MDEC

Appendix 6. The proportion of communes/households accessible to the public services (%)

Items	Mekong Delta	Vietnam
Paved road to commune by car	85.7	96.7
Paved road to village by car	59.9	78.5
Households are provided clean-water (piped water)	28.1	21.5
Households are provided electricity	92.9	96.0
Households have computer	4.2	7.9
Households have a connection of the internet	15.9	21.4

Source: GSO, 2006b

Appendix 7. Labour share by sectors and educational attainment (%)

Sector	Labour share	Educational attainment					
		Illiterate	Incomplete primary school	Primary school	Lower secondary school	Upper secondary school	Total
Agriculture	51.7	5.7	28.8	43.9	15.6	6.0	100.0
Industry	17.4	2.8	15.1	41.8	24.9	15.4	100.0
Services	30.9	3.5	15.8	36.1	19.2	25.4	100.0

Source: MOLISA, 2007.

Appendix 8. Labour share by sectors and qualification (%)

Sector	Unskilled	Apprentice without certificate	Worker with short-term certificate	Worker with long-term certificate	College degree	Bachelor degree	Post graduate degree
Agriculture	80.1	18.7	0.3	0.6	0.1	0.1	0.0
Industry	40.3	48.5	4.9	4.0	0.7	1.7	0.0
Services	58.1	19.4	3.5	9.2	3.8	5.9	0.1
Total	66.4	24.1	2.1	3.8	1.4	2.2	0.0

Source: MOLISA, 2007.

Appendix 9. Proportion of communes having dropping out by educational levels

	Primary school			Secondary school			High school		
	MD	CNC	Country	MD	CNC	Country	MD	CNC	Country
2003	79.1	24.4	43.8	89.5	40.7	61.9	72.0	28.5	56.0
2005	71.1	21.1	37.0	89.0	39.8	57.2	76.6	35.2	58.8
2007	72.5	23.8	39.1	88.1	52.8	66.1	68.8	43.3	58.1

Source: GSO, 2008b